

**What we owe to family:
The impact of special obligations on moral judgment**

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Abstract

Although impartiality is moralized, it is unclear under what conditions partiality is moralized. The current studies investigated whether moral judgments integrate information about special obligations to specific others, particularly to kin. In Studies 1-2 ($N_s=209/193$), agents who helped a stranger were judged as more morally good/trustworthy than those who helped kin, but agents who helped a stranger *instead of* kin were judged as less morally good/trustworthy than those who did the opposite. In Studies 3-4 ($N_s=304/305$), agents who simply neglected a stranger were judged as less morally bad/untrustworthy than those who neglected kin. Study 4 also demonstrated that perceived obligations being *violated* versus *fulfilled* underlie all judgment patterns. Study 5 ($N=388$) demonstrated boundary conditions; when occupying roles requiring impartiality, agents who helped a stranger instead of kin were judged as *more* morally good/trustworthy than those who did the opposite. These findings illuminate the importance of obligations in structuring moral judgment.

Introduction

Peter Singer, an inspiring altruist, is well recognized for his philosophical arguments that we should value close loved ones and distant strangers similarly (or at least not as differently as most of us do). He practices what he preaches and donates 40% of his income to strangers through high-efficacy charities. When his mother developed Alzheimer's, though, he partially eschewed his philosophy and spent more money caring for her than his own moral arguments permitted. Singer remarked on his violation of principle, "Perhaps it is more difficult than I thought before, because it is different when it's your mother" (MacFarquhar, 2015). Had Singer done otherwise, how would he have been judged? In isolation, helping strangers seems commendable precisely because Singer has no obligations to strangers. However, had Singer continued helping strangers *instead of* his mother, not only might this have been judged as less praiseworthy, but he may have been condemned for violating a special obligation to family.

While special obligations to family have received some attention in philosophy (e.g., Jeske, 1998; Sommers, 1986), moral psychology has largely neglected that our day-to-day lives are mostly spent with close others rather than unrelated strangers (Bloom, 2011), and lagged in characterizing special obligations (Bartels, Bauman, Cushman, Pizarro, & McGraw, 2016; Kleiman-Weiner, Saxe, & Tenenbaum, 2017; Tomasello, forthcoming). Existing frameworks, like Moral Foundations Theory (Graham, Nosek, Haidt, Iyer, Koleva, & Ditto, 2011) and Relationship Regulation Theory (RRT; Rai & Fiske, 2011), have noted the importance of socio-functional dynamics in morality (e.g., in-group loyalty and unity). Importantly, supporting RRT, perceived moral relevance is higher when a relational component is present versus absent, such as burning someone else's arm versus burning one's own arm (Tepe & Aydinli-Karakulak, in press). To our knowledge, neither framework has measured obligations to family specifically or

their relation to moral judgment. However, a recent theory, “Morality-as-Cooperation,” argues that family obligations are widely considered as morally relevant (Curry, Chesters, & Van Lissa, 2019). Furthermore, the side-taking hypothesis denotes family as one type of special relationship that can become morally relevant during disputes by relying on existing alliances (DeScioli & Kurzban 2013). In this paper, we provide evidence that, in everyday contexts, people indeed recognize a positive obligation to help kin more than non-kin, and these perceptions influence moral judgments.

Consistent with the evolutionary theory of kin altruism (Hamilton, 1964), previous work suggests that people will generally favor kin over non-kin when making first-person decisions. In life-threatening situations, people more often report intending to help a sibling responsible for her plight over a non-responsible acquaintance (Greitemeyer, Rudolph, & Weiner, 2003). When someone needs help, genetic relatedness between the potential helper and beneficiary increases helping intentions (Burnstein, Crandall, & Kitayama, 1994), and people will sustain uncomfortable physical exercise for longer to reward close versus distant genetic relatives (Madsen et al., 2007). People are also sensitive to these distinctions in moral dilemmas, being more willing to sacrifice one brother to save five brothers than one stranger to save five strangers (Kurzban, DeScioli, & Fein, 2012). When contemplating hypothetical crimes, adults are less willing to report a responsible brother than a responsible stranger, regardless of the (un)ambiguity of their culpability (Lee & Holyoak, 2018). Finally, in third-party evaluations, people judge others as morally worse when they abuse family than when they abuse strangers (Hughes, Creech, & Strosser, 2016).

From a third-party perspective, however, it remains unclear, in everyday helping contexts, whether and how (a) the relationship between helper and beneficiary influences moral

judgments, and (b) perceptions of fulfilled and unfulfilled obligations underlie those judgments. Specifically, kinship may entail involuntary obligations to one another, a property that non-kinship may not equally share. Therefore, if kin obligations influence moral judgments, the same behavior will be judged differently depending on *who* is benefitted. Consider two scenarios, one in which an unrelated stranger needs help, and another in which kin needs help. Agents who help a stranger should be judged more positively than agents who help kin, precisely because people have no special obligations to strangers. Conversely, when a choice must be made between two people (one related and one not), because an obligation to kin will be present (Everett, Faber, Savulescu, & Crockett, 2018; Hughes, 2017), agents who fulfill this obligation by helping their kin *instead of* a stranger (versus a stranger instead of their kin) should be judged more positively. When simply failing to help, agents who neglect kin should be judged less positively (or more negatively) than agents who neglect a stranger, as the former are *violating* a special obligation (see Haidt & Baron, 1996). All predictions thus far have relied on the assumption that kin obligations will ultimately structure moral judgment. Here we also explore contexts in which favoritism seems inappropriate, and kin obligations may not take precedent over other obligations. We propose that, when agents occupy roles requiring impartiality (e.g., a professor helping his/her new students), those who help kin instead of a stranger should be judged *less* positively than those who do the opposite.

Across five studies, we tested these predictions by manipulating the helper-beneficiary relationship and whether another potential beneficiary (whose relationship to the helper differed) was present. Importantly, in the final two studies, perceptions of obligations being violated versus fulfilled were measured to explicitly investigate the role of obligation in moral judgment.

Open Science

All materials necessary for replication are available on our OSF page (<https://osf.io/bnwdv/>). This includes full stimulus texts; traditionally formatted data, output, and interpretation (see Supplemental Online Material; SOM); mixed effects data, R code and output; and by-scenario/by-item breakdowns for all studies. All initial sample sizes were chosen to result in analyzable samples of at least $N = 200$ per study. A sensitivity analysis determined that this sample size yields 80% power to detect Cohen's $d_z = 0.20$ for within-subjects comparisons (see SOM for these effect sizes). All studies were pre-registered at AsPredicted.org, the links for which can also be accessed through OSF. In Studies 3-5, we deviated from our analysis plans because we mistakenly pre-registered separate mixed effects models for situations in which one model was appropriate.

Study 1

Method

Participants

Participants were 234 United States residents recruited and compensated via Amazon's Mechanical Turk. Participants who failed to correctly answer two scenario-relevant memory questions ($n=25$) were excluded from analyses, resulting in a final $N=209$ (40.2% female, $M_{Age}=34.75$).

Materials and Procedure

Participants read eight stories in which agents engaged in helping behavior. We varied the relationship between helper and beneficiary (Relationship: Stranger vs. Kin) and whether another potential beneficiary could have been helped instead (Choice: No Choice vs. Choice). Participants read two stories that each corresponded to "Stranger, No Choice," "Stranger, Choice," and so on.). Thus, the design of the study was a fully crossed 2 (Relationship) x 2

(Choice) within-subjects design in which participants saw all eight stories *but never the same story across conditions* (see Table 1 for a shortened scenario example across conditions).

Table 1. Example manipulations of an abridged partiality scenario in Studies 1-5.

	Stranger	Kin
No Choice	John noticed that someone was moving into an apartment down the hall from him. <u>He did not recognize the new tenant; she was a stranger.</u> John helped his <u>new neighbor</u> move her furniture in.	John noticed that someone was moving into an apartment down the hall from him. <u>He recognized the new tenant; she was his cousin whom he had not seen or spoken to in years.</u> John helped <u>his cousin</u> move her furniture in.
Choice	John noticed that people were moving into two separate apartments down the hall from him. He did not recognize one of the new tenants; she was a stranger. He recognized the other new tenant, though; she other was his cousin whom he had not seen or spoken to in years. Rather than help <u>his cousin</u> , John helped <u>his other new neighbor</u> move her furniture in.	John noticed that people were moving into two separate apartments down the hall from him. He did not recognize one of the new tenants; she was a stranger. He recognized the other new tenant, though; she other was his cousin whom he had not seen or spoken to in years. Rather than help <u>the stranger</u> , John helped <u>his cousin</u> move her furniture in.
Failed	John noticed that someone was moving into an apartment down the hall from him. <u>He did not recognize the new tenant; she was a stranger.</u> Rather than help <u>his new neighbor</u> move her furniture in, John stayed in his apartment and played video games.	John noticed that someone was moving into an apartment down the hall from him. <u>He recognized the new tenant; she was his cousin whom he had not seen or spoken to in years.</u> Rather than help <u>his cousin</u> move her furniture in, John stayed in his apartment and played video games.

Note: Actual scenarios were more detailed (see <https://osf.io/bnwdv/> for full texts). Participants never saw the same scenario across conditions; rather, participants saw different scenarios for each condition.

Across Studies 1-4, genetic relatives ranged from 1.56% (e.g., second cousin's child) to 12.50% related (e.g., cousin) to the target agent. In Study 5, four of 18 total scenarios involved relatives who were 25% related (e.g., niece). In all studies, kin were always described as otherwise stranger-like (e.g., had not been seen or spoken to in years) to isolate the effect of relatedness on obligation, as opposed to social closeness, shared history, and therefore possible inferences of reciprocity (i.e., that the family member may have helped the target agent in the past). Thus, the present approach represents a conservative test; effects are likely to be stronger as relatedness, social closeness, or shared history among kin increases.

After reading each scenario, participants answered questions assessing how morally bad or good the agent was as a person, and how (un)trustworthy the agent was (*1 = extremely bad/untrustworthy* to *7 = extremely good/trustworthy*), as these characteristics appear most important in person perception (Cottrell, Neuberg, & Li, 2007; Goodwin, 2015; Goodwin, Piazza, & Rozin, 2014). Participants also answered questions about the wrongness of the act, and how diagnostic the agent's actions were of their future behaviors (see SOM for analyses).

Results

Descriptive statistics for morality and trustworthiness are shown in Figure 1 (for graphing purposes, "neither bad nor good/untrustworthy nor trustworthy," originally 4s on the 1-7 scale, are shown at the 0-midpoint). As pre-registered, data were analyzed with linear mixed effects models, specified to predict moral judgments from the fixed effects of Relationship (Stranger vs. Kin) and Choice (No Choice vs. Choice), their interaction, and the random intercepts of Subject and Scenario. The random intercepts model allows for generalization of results to other stimuli and individuals (Judd, Westfall, & Kenny, 2012). All comparisons and corresponding statistics are reported in Table 2.

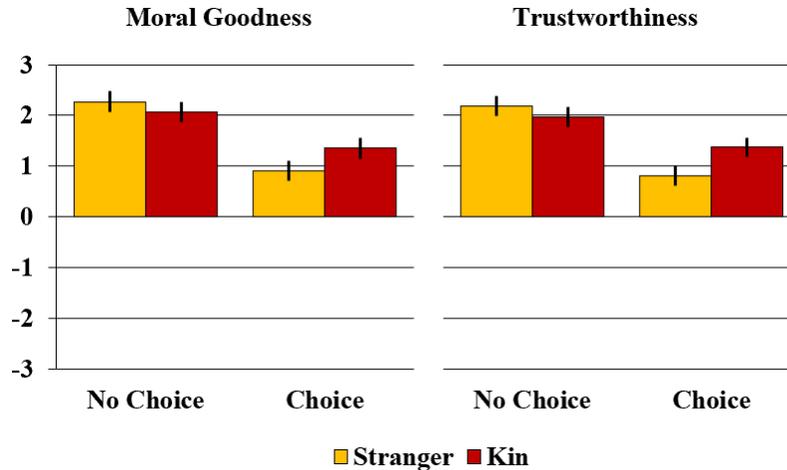


Figure 1. Judgments of target agent. Error bars represent 95% CIs. In No Choice conditions, only one potential beneficiary was available to help and was helped. In Choice conditions, two potential beneficiaries were available to help, but only one was helped.

Moral Goodness

As predicted, there was a significant interaction between Relationship and Choice, $b = -0.640$, $SE_b = 0.094$, $t(1,456.38) = -6.843$, $p < .001$. No means crossed below the midpoint into “morally bad.” In No Choice conditions, agents who helped a stranger (versus kin) were judged as significantly more morally good, whereas in Choice conditions, agents who helped kin instead of a stranger (versus a stranger instead of kin) were judged as significantly more morally good.

Trustworthiness

As predicted, there was a significant interaction between Relationship and Choice, $b = -0.772$, $SE_b = 0.094$, $t(1,456.43) = -8.179$, $p < .001$. Both pairwise comparisons of interest showed trends that were statistically identical to moral goodness.

Table 2. LMEM means, 95% CIs, *t*-ratios, *p*-values, and *ds* for Study 1.

Condition	DV	Stranger	Kin	<i>t</i> -ratio	<i>p</i> -value	<i>d</i>
		<i>M</i> (95% CIs)				
No Choice	<i>Moral Goodness</i>	6.27 (6.06, 6.49)	6.07 (5.86, 6.29)	3.00	.003	0.17
	<i>Trustworthiness</i>	6.19 (5.98, 6.39)	5.97 (5.77, 6.18)	3.20	.001	0.18
.....						
Choice	<i>Moral Goodness</i>	4.91 (4.69, 5.12)	5.35 (5.13, 5.56)	6.66	< .001	0.38
	<i>Trustworthiness</i>	4.81 (4.60, 5.01)	5.37 (5.16, 5.57)	8.35	< .001	0.48

Note: Study 1 had 1,692 observations per variable. *ds* are computed by dividing the mean difference by the square root of the summed variance components (as described in Brysbaert & Stevens, 2018).

Study 2

The purpose of Study 2 was to directly replicate Study 1's results.

Method

Participants

Participants were 235 United States residents recruited and compensated via Amazon's Mechanical Turk. Participants who failed to correctly answer two scenario-relevant memory questions ($n=43$) were excluded from analyses, resulting in a final $N=193$ (49.7% female, $M_{Age}=38.30$).

Materials and Procedure

The study design and procedure were identical to those of Study 1. Because no means crossed below the midpoint in Study 1, moral goodness and trustworthiness were measured on unidirectional scales ($1 = not\ at\ all\ good/trustworthy$ to $5 = extremely\ good/trustworthy$). Participants also answered questions about how likely it would be for the average person to do what the agent did, the unpredictability of the agent's future behavior, and the amount of harm that occurred (see SOM for analyses).

Results

Data were analyzed with identical mixed effects models as Study 1. Descriptive statistics for moral goodness and trustworthiness are shown in Figure 2. All comparisons and corresponding statistics are reported in Table 3.

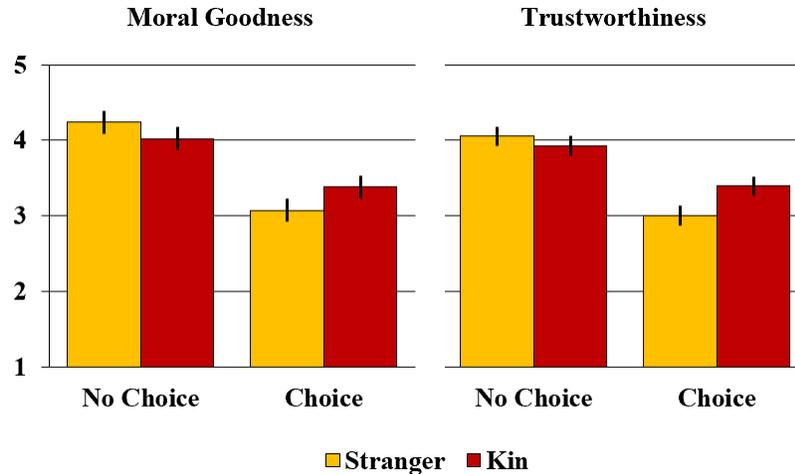


Figure 2. Judgments of target agent. Error bars represent 95% CIs. In No Choice conditions, only one potential beneficiary was available to help and was helped. In Choice conditions, two potential beneficiaries were available to help, but only one was helped.

Moral Goodness

As predicted, there was a significant interaction between Relationship and Choice, $b = -0.532$, $SE_b = 0.073$, $t(1,345.59) = -7.277$, $p < .001$. In No Choice conditions, agents who helped a stranger (versus kin) were judged as significantly more morally good, whereas in Choice conditions, agents who helped kin instead of a stranger (versus a stranger instead of kin) were judged as significantly more morally good.

Trustworthiness

As predicted, there was a significant interaction between Relationship and Choice, $b = -0.518$, $SE_b = 0.073$, $t(1,346.59) = -7.069$, $p < .001$. Both pairwise comparisons of interest showed trends that were statistically identical to moral goodness.

Table 3. LMEM means, 95% CIs, *t*-ratios, *p*-values, and *ds* for Study 2.

Condition	DV	<i>M</i> (95% CIs)		<i>t</i> -ratio	<i>p</i> -value	<i>d</i>
		Stranger	Kin			
No Choice	<i>Moral Goodness</i>	4.24 (4.08, 4.40)	4.02 (3.86, 4.18)	4.27	< .001	0.25
	<i>Trustworthiness</i>	4.05 (3.91, 4.19)	3.92 (3.79, 4.06)	2.49	.013	0.14
Choice	<i>Moral Goodness</i>	3.07 (2.91, 3.22)	3.38 (3.22, 3.54)	6.01	< .001	0.35
	<i>Trustworthiness</i>	3.00 (2.86, 3.13)	3.39 (3.25, 3.52)	7.50	< .001	0.43

Note: Study 2 had 1,544 observations per variable. *ds* are computed by dividing the mean difference by the square root of the summed variance components (as described in Brysbaert & Stevens, 2018).

Study 3

Study 3 had three aims. First, it served as an additional replication of Studies 1-2. Second, we tested the prediction that simply *failing* to help kin would elicit harsher moral judgments than failing to help strangers. Third, our design allowed us to compare helping strangers instead of kin to simply failing to help kin.

Method

Participants

Participants were 330 United States residents recruited and compensated via Amazon's Mechanical Turk. Participants who failed to correctly answer at least two scenario-relevant memory questions ($n=26$) were excluded from analyses, resulting in a final $N=304$ (37.5% female, $M_{Age}=36.88$).

Materials and Procedure

Participants read six stories in which agents engaged or failed to engage in helping behavior. The study design and procedure were similar to Studies 1-2 with the addition of the "Failed" scenarios. Thus, Study 3 was a fully crossed 2 (Relationship: Stranger vs. Kin) x 3 (Choice: No Choice vs. Choice vs. Failed) within-subjects design in which participants saw six total stories, each corresponding to a different condition. After reading each scenario, participants rated the agent's moral goodness ($1 = not at all good$ to $5 = extremely good$). Participants also judged the unpredictability of the agent's future behavior (see SOM for analyses).

Results

Data were analyzed with similar mixed effects models to Studies 1-2. Descriptive statistics for moral goodness are shown in Figure 3. All comparisons and corresponding statistics are reported in Table 4.

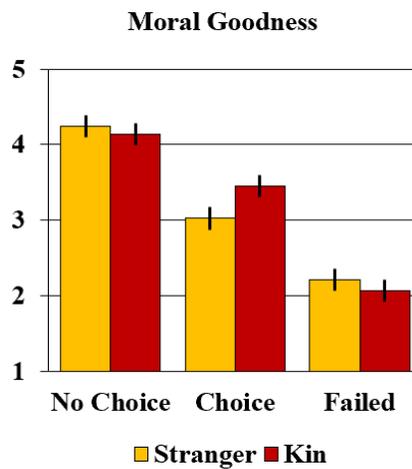


Figure 3. Judgments of target agent. Error bars represent 95% CIs. In No Choice conditions, only one potential beneficiary was available to help and was helped. In Choice conditions, two potential beneficiaries were available to help, but only one was helped. Failed conditions were otherwise identical to No Choice conditions, except that the only potential beneficiary was neglected.

As predicted, there was a significant interaction between Relationship and Choice when comparing No Choice and Choice conditions, $b = -0.536$, $SE_b = 0.103$, $t(1,513.37) = -5.186$, $p < .001$. Also as predicted, there was a significant interaction between Relationship and Choice when comparing Choice and Failed conditions, $b = -0.589$, $SE_b = 0.103$, $t(1,512.95) = -5.698$, $p < .001$. Unlike Studies 1-2, which supported the predicted difference between strangers and kin in No Choice conditions, here, there was no difference in moral goodness. However, in Choice conditions, agents who helped kin instead of a stranger (versus a stranger instead of kin) were judged as significantly more morally good. In Failed conditions, agents who failed to help a stranger (versus kin) were judged as more morally good. Additionally, agents who failed to help

kin were judged as less morally good than agents who helped a stranger instead of kin, suggesting that neglecting kin but still helping *someone* is better than simply neglecting kin.

Table 4. LMEM means, 95% CIs, *t*-ratios, *p*-values, and *ds* for Study 3.

Condition	DV	Stranger	Kin	<i>t</i> -ratio	<i>p</i> -value	<i>d</i>
		<i>M</i> (95% CIs)				
No Choice	<i>Moral Goodness</i>	4.24 (4.08, 4.39)	4.14 (3.98, 4.29)	1.33	.183	0.10
Choice	<i>Moral Goodness</i>	3.02 (2.86, 3.17)	3.45 (3.30, 3.61)	5.99	< .001	0.46
Failed	<i>Moral Goodness</i>	2.21 (2.05, 2.36)	2.06 (1.90, 2.21)	2.06	.040	0.16

Note: Study 3 had 1,824 observations per variable. Participants also judged agents as more morally good when they helped a stranger instead of kin compared to when they failed to help kin, $t = 13.10$, $p < .001$, $d = 1.00$. *ds* are computed by dividing the mean difference by the square root of the summed variance components (as described in Brysbaert & Stevens, 2018).

Study 4

Study 4 was designed to replicate the results of Study 3 and to examine explicit obligation judgments. Across No Choice and Choice conditions, helping kin should be judged as more of an obligation *fulfillment* than helping strangers. Conversely, failing to help kin should be judged as more of an obligation *violation* than failing to help strangers.

Method

Participants

Participants were 333 United States residents recruited and compensated via Amazon's Mechanical Turk. Participants who failed to correctly answer at least two scenario-relevant memory questions ($n=28$) were excluded from analyses, resulting in a final $N=305$ (45.9% female, $M_{Age}=36.33$).

Materials and Procedure

The study design and procedure were similar to Study 3. However, because the “Failed” scenarios could be viewed as morally *bad*, and participants were unable to make this judgment in Study 3, all measures relied on bidirectional scales to potentially capture *negative* judgments in Study 4. Specifically, participants judged the agent's moral goodness and trustworthiness ($1 = \textit{extremely bad/untrustworthy}$ to $9 = \textit{extremely good/trustworthy}$), as well as if the agent violated or fulfilled an obligation ($1 = \textit{completely violated}$ to $9 = \textit{completely fulfilled}$). Participants also answered questions about the rightness of the act, praise deserved, fairness of the outcome, unpredictability of the agent's future behavior, and likelihood that the average person would behave similarly (see SOM for analyses).

Results

Data were analyzed with identical mixed effects models as previous studies. Descriptive statistics for moral goodness, trustworthiness, and obligation are shown in Figure 4 (for graphing purposes, “neither” judgments, originally 5s on the 1-9 scale, are shown at the 0-midpoint). All comparisons and corresponding statistics are reported in Table 5.

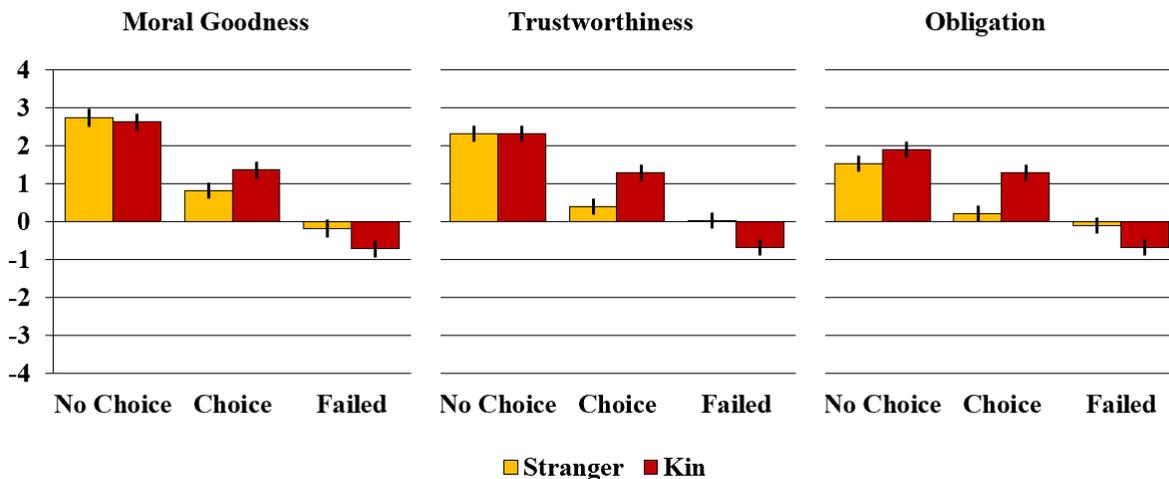


Figure 4. Judgments of target agent. Error bars represent 95% CIs. In No Choice conditions, only one potential beneficiary was available to help and was helped. In Choice conditions, two potential beneficiaries were available to help, but only one was helped. Failed conditions were otherwise identical to No Choice conditions, except that the only potential beneficiary was neglected.

Moral Goodness

As predicted, there was both a significant interaction between Relationship and Choice when comparing No Choice and Choice conditions, $b = -0.643$, $SE_b = 0.164$, $t(1,519.39) = -3.910$, $p < .001$, and when comparing Choice and Failed conditions, $b = -1.057$, $SE_b = 0.164$, $t(1,519.78) = -6.427$, $p < .001$. In No Choice conditions, there was no difference in moral goodness. However, in Choice conditions, agents who helped kin instead of a stranger (versus a stranger instead of kin) were judged as significantly more morally good. In Failed conditions,

agents who failed to help a stranger (versus kin) were judged as significantly less morally *bad*, and, replicating Study 3, agents who failed to help kin were judged as significantly less morally good than agents who helped a stranger instead of kin.

Trustworthiness

As predicted, there was a significant interaction between Relationship and Choice both when comparing No Choice and Choice conditions, $b = -0.922$, $SE_b = 0.175$, $t(1,520.52) = -5.263$, $p < .001$, and when comparing Choice and Failed conditions, $b = -1.598$, $SE_b = 0.175$, $t(1521.16) = -9.118$, $p < .001$. All pairwise comparisons of interest showed trends that were statistically identical to moral goodness.

Obligation

As predicted, there was a significant interaction between Relationship and Choice both when comparing No Choice and Choice conditions, $b = -0.704$, $SE_b = 0.186$, $t(1,520.48) = -3.777$, $p < .001$, and when comparing Choice and Failed conditions, $b = -1.648$, $SE_b = 0.187$, $t(1,521.27) = -8.839$, $p < .001$. In No Choice conditions, agents who helped a stranger (versus kin) were judged as fulfilling an obligation significantly less, and, similarly, in Choice conditions, agents who helped a stranger instead of kin (versus kin instead of a stranger) were judged as fulfilling an obligation significantly less. Agents who failed to help a stranger (versus kin) were judged as violating an obligation significantly less, and agents who failed to help kin were also judged as violating an obligation significantly more than agents who helped a stranger instead of kin.

Table 5. LMEM means, 95% CIs, *t*-ratios, *p*-values, and *ds* for Study 4.

Condition	DV	Stranger		Kin		<i>t</i> -ratio	<i>p</i> -value	<i>d</i>
		<i>M</i> (95% CIs)						
No Choice	<i>Moral Goodness</i>	7.73 (7.50, 7.95)	7.63 (7.40, 7.85)	0.87	.383	0.07		
	<i>Trustworthiness</i>	7.32 (7.11, 7.52)	7.30 (7.09, 7.50)	0.18	.861	0.01		
	<i>Obligation</i>	6.52 (6.31, 6.73)	6.89 (6.68, 7.09)	2.76	.006	0.21		
Choice	<i>Moral Goodness</i>	5.80 (5.58, 6.03)	6.35 (6.12, 6.57)	4.65	< .001	0.35		
	<i>Trustworthiness</i>	5.38 (5.17, 5.58)	6.28 (6.08, 6.48)	7.25	< .001	0.56		
	<i>Obligation</i>	5.20 (4.99, 5.41)	6.27 (6.06, 6.47)	8.09	< .001	0.62		
Failed	<i>Moral Goodness</i>	4.80 (4.57, 5.02)	4.28 (4.06, 4.51)	4.43	< .001	0.34		
	<i>Trustworthiness</i>	5.01 (4.81, 5.22)	4.33 (4.11, 4.52)	5.62	< .001	0.43		
	<i>Obligation</i>	4.88 (4.67, 5.09)	4.30 (4.09, 4.51)	4.39	< .001	0.34		

Note: Study 4 had 1,830 observations per variable. Participants also judged agents as more morally good, more trustworthy, and as fulfilling an obligation more when they helped a stranger instead of kin compared to when they failed to help kin, $ts \geq 8.09$, $ps < .001$, $ds = 0.99$, 0.66 , and 0.52 . *ds* are computed by dividing the mean difference by the square root of the summed variance components (as described in Brysbaert & Stevens, 2018).

Study 5

Study 5 was designed to replicate the obligation effects from Study 4 and to investigate boundary conditions. Specifically, when occupying roles requiring impartiality, agents assume additional obligations to non-kin (e.g., professors have obligations to students). Because helping kin may be perceived as showing inappropriate favoritism in these contexts, agents who help kin instead of strangers should be judged *less* positively, and as fulfilling an obligation *less*, than agents who do the opposite.

Method

Participants

Participants were 443 U.S. residents recruited and compensated via Amazon's Mechanical Turk. Participants who failed to correctly answer at least one attention check ($n=55$) were excluded from analyses, resulting in a final $N=388$ (43.6% female, $M_{Age}=35.04$).

Materials and Procedure

The study design was a 2 (Relationship: Stranger vs. Kin) x 3 (Choice: No Choice vs. Choice vs. Failed) x 2 (Context: Partial vs. Impartial) mixed design in which Relationship and Choice were manipulated within-subjects, whereas Context was manipulated between-subjects ($N = 192$ for Partial; $N = 196$ for Impartial). Participants answered identical questions as in Study 4, but instead on 7-point bidirectional scales. Participants also judged how (un)expected the agent's behavior was (see SOM for analyses of this and other additional variables). See Table 6 for a shortened impartiality scenario example.

Results

Data were analyzed with identical mixed effects models as previous studies. Descriptive statistics for moral goodness, trustworthiness, and obligation, by context, are shown in Figure 5

(for graphing purposes, “neither” judgments, originally 4s on the 1-7 scale, are shown at the 0-midpoint). All comparisons and corresponding statistics are reported in Tables 7-8.

Table 6. Example manipulations of an abridged impartiality scenario in Study 5.

	Stranger	Kin
No Choice	Debbie, a professor, received an e-mail from a student who asked to meet on her only day off to talk about graduate school. <u>Debbie did not recognize the student’s name; she was a stranger.</u> Debbie e-mailed back and set up a meeting to drive to a coffee shop near <u>the student’s</u> hometown to chat more about graduate school.	Debbie, a professor, received an e-mail from a student who asked to meet on her only day off to talk about graduate school. <u>Debbie recognized this student’s name; she was her cousin’s daughter whom she had not seen or spoken to in a while.</u> Debbie e-mailed back and set up a meeting to drive to a coffee shop near <u>her cousin’s</u> hometown to chat more about graduate school.
Choice	Debbie, a professor, received two e-mails from students who asked to meet on their only days off to talk about graduate school. Debbie did not recognize one of the student’s names; she was a stranger. Debbie recognized the other student’s name; she was her cousin’s daughter whom she had not seen or spoken to in a while. Instead of e-mailing <u>her cousin’s daughter back, Debbie instead set up a meeting to drive to a coffee shop near the other student’s</u> hometown to chat more about graduate school.	Debbie, a professor, received two e-mails from students who asked to meet on their only days off to talk about graduate school. Debbie did not recognize one of the student’s names; she was a stranger. Debbie recognized the other student’s name; she was her cousin’s daughter whom she had not seen or spoken to in a while. Instead of e-mailing <u>the student she did not know, Debbie instead set up a meeting to drive to a coffee shop near her cousin’s</u> hometown to chat more about graduate school.
Failed	Debbie, a professor, received an e-mail from a student who asked to meet on her only day off to talk about graduate school. <u>Debbie did not recognize the student’s name; she was a stranger.</u> Instead of setting up a meeting, Debbie e-mailed back telling <u>the student</u> that she could not meet.	Debbie, a professor, received an e-mail from a student who asked to meet on her only day off to talk about graduate school. <u>Debbie recognized this student’s name; she was her cousin’s daughter whom she had not seen or spoken to in a while.</u> Instead of setting up a meeting, Debbie e-mailed back telling <u>her cousin’s daughter</u> that she could not meet.

Note: Actual scenarios were more detailed (see <https://osf.io/bnwdv/> for full scenario texts). Participants never saw the same scenario across conditions; rather, participants saw different scenarios for each condition.

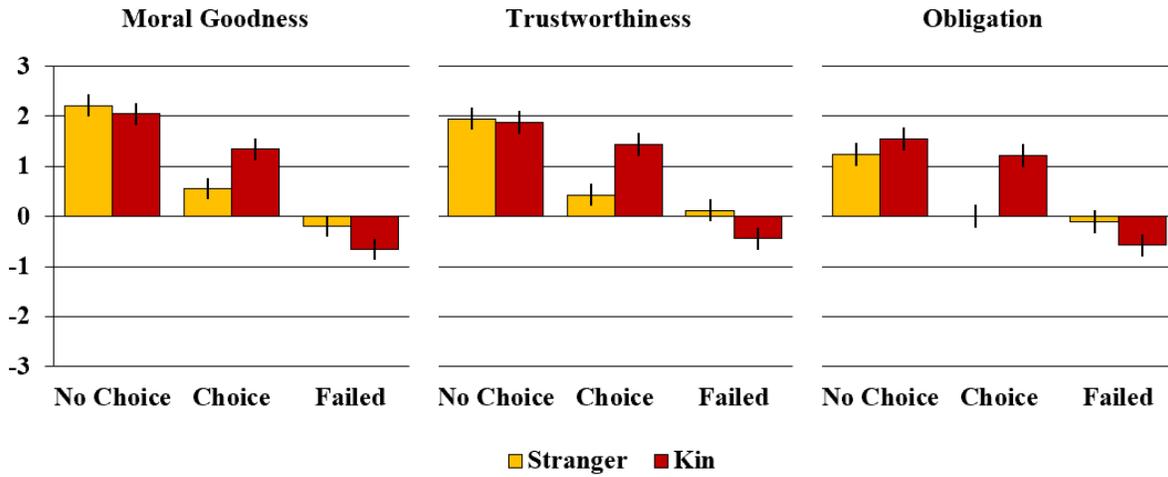


Figure 5. Judgments of target agent in Partiality Contexts. Error bars represent 95% CIs. In No Choice conditions, only one potential beneficiary was available to help and was helped. In Choice conditions, two potential beneficiaries were available to help, but only one was helped. Failed conditions were otherwise identical to No Choice conditions, except that the only potential beneficiary was neglected.

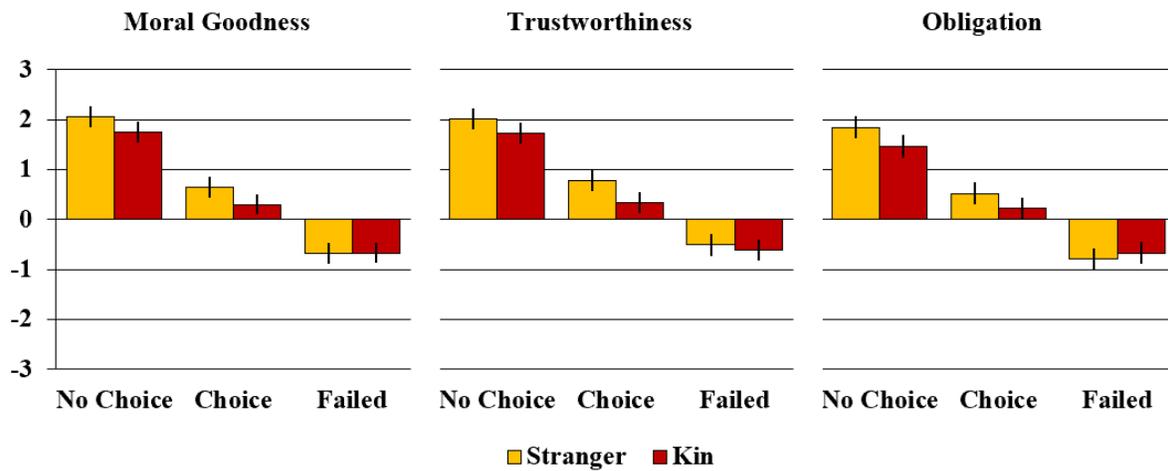


Figure 6. Judgments of target agent in Impartiality Contexts. Error bars represent 95% CIs. In No Choice conditions, only one potential beneficiary was available to help and was helped. In Choice conditions, two potential beneficiaries were available to help, but only one was helped. Failed conditions were otherwise identical to No Choice conditions, except that the only potential beneficiary was neglected.

Moral Goodness

As predicted, a 3-way interaction between Relationship, Choice, and Context occurred, both when comparing No Choice and Choice conditions, $b = 0.997$, $SE_b = 0.236$, $t(1,932.65) = 4.232$, $p < .001$, and when comparing Choice and Failed conditions, $b = 1.600$, $SE_b = 0.236$, $t(1,931.03) = 6.792$, $p < .001$.

For Partial contexts, in No Choice conditions, agents who helped a stranger (versus kin) were judged as no more morally good. In Choice conditions, agents who helped a stranger instead of kin (versus kin instead of a stranger) were judged as significantly less morally good. In Failed conditions, agents who failed to help a stranger (versus kin) were judged as significantly less morally bad.

For Impartial contexts, however, in No Choice conditions, agents who helped a stranger (versus kin) were judged as significantly more morally good. In Choice conditions, agents who helped a stranger instead of kin (versus kin instead of a stranger) were also judged as significantly *more* morally good. In Failed conditions, there was no difference in moral goodness, suggesting that failing to help a stranger and failing to help kin are equally bad when agents occupy roles requiring impartiality.

Trustworthiness

As predicted, a 3-way interaction between Relationship, Choice, and Context occurred, both when comparing No Choice and Choice conditions, $b = 1.229$, $SE_b = 0.241$, $t(1,933.34) = 5.106$, $p < .001$, and when comparing Choice and Failed conditions, $b = 1.910$, $SE_b = 0.240$, $t(1,931.78) = 7.945$, $p < .001$. Across contexts, all pairwise comparisons of interest showed trends that were statistically identical to moral goodness.

Obligation

As predicted, a 3-way interaction between Relationship, Choice, and Context occurred, both when comparing No Choice and Choice conditions, $b = 0.814$, $SE_b = 0.270$, $t(1,935.96) = 3.012$, $p = .003$, and when comparing Choice and Failed conditions, $b = 2.110$, $SE_b = 0.270$, $t(1,934.20) = 7.813$, $p < .001$.

For Partial contexts, in No Choice conditions, agents who helped a stranger (versus kin) were judged as fulfilling an obligation significantly less. In Choice conditions, agents who helped a stranger instead of kin (versus kin instead of a stranger) were judged as fulfilling an obligation significantly more. In Failed conditions, agents who failed to help a stranger (versus kin) were judged as violating an obligation significantly less.

For Impartial contexts, however, in No Choice conditions, agents who helped a stranger (versus kin) were judged as fulfilling an obligation significantly *more*. In Choice conditions, agents who helped a stranger instead of kin (versus kin instead of a stranger) were judged as fulfilling an obligation significantly *more*. In Failed conditions, there was no difference in obligation judgments.

Table 7. Partiality LMEM means, 95% CIs, *t*-ratios, *p*-values, and *ds* for Study 5.

Condition	DV	Stranger	Kin	<i>t</i> -ratio	<i>p</i> -value	<i>d</i>
		<i>M</i> (95% CIs)				
No Choice	<i>Moral Goodness</i>	6.22 (6.00, 6.44)	6.05 (5.83, 6.27)	1.42	.155	0.14
	<i>Trustworthiness</i>	5.95 (5.72, 6.17)	5.88 (5.65, 6.10)	0.58	.560	0.06
	<i>Obligation</i>	5.24 (5.01, 5.47)	5.55 (5.31, 5.78)	2.25	.025	0.22
Choice	<i>Moral Goodness</i>	4.56 (4.34, 4.78)	5.34 (5.12, 5.55)	6.55	< .001	0.64
	<i>Trustworthiness</i>	4.43 (4.21, 4.66)	5.44 (5.22, 5.67)	8.35	< .001	0.80
	<i>Obligation</i>	4.00 (3.77, 4.23)	5.21 (4.98, 5.44)	8.88	< .001	0.88
Failed	<i>Moral Goodness</i>	3.81 (3.59, 4.03)	3.34 (3.13, 3.56)	3.95	< .001	0.39
	<i>Trustworthiness</i>	4.12 (3.89, 4.35)	3.56 (3.34, 3.79)	4.62	< .001	0.44
	<i>Obligation</i>	3.90 (3.67, 4.13)	3.42 (3.18, 3.65)	3.55	< .001	0.35

Note: Study 5 had 2,328 observations per variable (1, 152 for Partiality and 1,176 for Impartiality contexts). *ds* are computed by dividing the mean difference by the square root of the summed variance components (as described in Brysbaert & Stevens, 2018).

Table 8. Impartiality LMEM means, 95% CIs, *t*-ratios, *p*-values, and *ds* for Study 5.

Condition	DV	Stranger		Kin		<i>t</i> -ratio	<i>p</i> -value	<i>d</i>
		<i>M</i> (95% CIs)						
No Choice	<i>Moral Goodness</i>	6.05 (5.84, 6.26)	5.75 (5.54, 5.96)	2.50	.013	0.24		
	<i>Trustworthiness</i>	6.01 (5.80, 6.23)	5.72 (5.51, 5.94)	2.41	.016	0.23		
	<i>Obligation</i>	5.84 (5.61, 6.06)	5.46 (5.24, 5.68)	2.81	.005	0.27		
Choice	<i>Moral Goodness</i>	4.65 (4.44, 4.86)	4.30 (4.09, 4.51)	2.94	.003	0.28		
	<i>Trustworthiness</i>	4.78 (4.56, 5.00)	4.34 (4.13, 4.56)	3.65	< .001	0.35		
	<i>Obligation</i>	4.52 (4.29, 4.74)	4.22 (4.00, 4.45)	2.16	.031	0.21		
Failed	<i>Moral Goodness</i>	3.32 (3.11, 3.53)	3.33 (3.12, 3.54)	0.07	.942	0.01		
	<i>Trustworthiness</i>	3.49 (3.27, 3.70)	3.39 (3.18, 3.61)	0.80	.424	0.08		
	<i>Obligation</i>	3.20 (2.98, 3.42)	3.33 (3.11, 3.55)	0.95	.343	0.09		

Note: Study 5 had 2,328 observations per variable (1, 152 for Partiality and 1,176 for Impartiality contexts). *ds* are computed by dividing the mean difference by the square root of the summed variance components (as described in Brysbaert & Stevens, 2018).

Discussion

While it has been argued and demonstrated that impartiality is moralized (DeScioli & Kurzban, 2009, 2013; Niemi, Wasserman, & Young, 2018), with consequences for ethical behavior (Waytz, Dungan, & Young, 2013), these findings demonstrate that partiality is also moralized. Although participants judged favoring kin to be morally good across Studies 1-4, Study 5 demonstrated boundary conditions in which partiality is deemed inappropriate, such as when one's role requires fair allocation of limited resources (see Shaw, DeScioli, & Olson, 2012; Shaw & Olson, 2014).

In Studies 1-2, agents who helped strangers were judged more positively than agents who helped kin; null effects were observed in Studies 3-5, but meta-analytically, these patterns emerged significant (see SOM). Conversely, in Studies 1-5, when given the choice between two potential beneficiaries, agents were judged more positively for helping kin *instead of* strangers (versus strangers instead of kin). In Studies 3-5, when agents *failed* to help kin, they were judged more negatively than agents who failed to help strangers. In Studies 4-5, when asked explicitly about obligations, participants perceived more fulfillment of an obligation for helping kin versus strangers (and for helping kin instead of strangers versus strangers instead of kin), and more of a *violation* of obligation when agents failed to help kin (versus strangers). Critically, also in Study 5, when occupying roles requiring impartiality, agents who helped kin *instead of* strangers were judged *less* positively, and as fulfilling an obligation *less*, than those who did the opposite.

“Morality-as-Cooperation” (MAC) theory predicts (and demonstrates) that helping kin is judged as morally good (Curry et al., 2019; Curry, Mullins, & Whitehouse, 2019). Our results are consistent with but add nuance to this view. Specifically, people are judged even more positively when they help strangers (but less positively when helping strangers instead of kin),

and, when people fail to help kin, they are judged more negatively than when they fail to help strangers. Relatedly, developmental research finds that children expect others to behave prosocially toward ingroup members (Chalik & Dunham, 2018), and they guide others to give more resources to family than to strangers (Olson & Spelke, 2008), suggesting an early-emerging understanding of relationship-oriented obligations. However, it is unclear whether such patterns resulted from beliefs about what *typically* occurs versus what *should* occur. In our data, supplemental analyses allowed us to distinguish between these possibilities. Specifically, after controlling for perceptions of what typically occurs, and general expectations, obligation perceptions still accounted for unique (and the highest percentage of) variance in moral judgments (see SOM). Our results also extend recent work on kin obligations' impacting moral judgment (Everett et al., 2018; Hughes, 2017). First, by describing kin as genetically and socially distant (as opposed to close), we can disentangle kin obligation effects from reciprocity effects (i.e., perceptions that people have obligations to reciprocate past help). Second, and most importantly, moderation effects in Study 5 demonstrated how context powerfully reprioritizes kin obligations in moral judgment, suggesting that people's moral psychology goes beyond the intuitive folk wisdom of "family first."

One limitation of the present research is the reliance on exclusively U.S. participants (Henrich, Heine, & Norenzayan, 2010a). In No Choice conditions, more positive judgments when agents helped strangers may be due to more WEIRD populations' being more impersonally prosocial (Schulz, Bahrami-Rad, Beauchamp, & Henrich, 2018) and thus valuing this behavior in others. In less WEIRD populations, however, helping strangers may be interpreted as a misuse of limited resources. Moreover, in partiality-appropriate Choice conditions, larger differences may exist in cultures that more strongly value relationship obligations over justice (Miller & Bersoff,

1992), whereas in impartiality-appropriate Choice conditions, smaller (or no) differences may exist in those same cultures. In addition to between-culture differences, individual differences may also provide clues into the relationship between values and judgments in this paradigm. In exploratory analyses, endorsement of specific MAC values statistically moderated the reported patterns (see SOM). For example, in partiality-appropriate contexts, the more one endorsed family values and reciprocity, the larger their difference in Choice conditions. However, in impartiality-appropriate contexts, these values did not predict that difference. Another limitation is that none of our scenarios involved friends, who may or may not be perceived like kin; therefore, whether there are similar, quantitatively different, or qualitatively different obligations to socially close but unrelated others remains unknown (but see Marshall & Bloom, in prep, for evidence that, in similar situations involving children, older children and adults judge that family “has to” help more than friends). Future work should investigate how these effects vary both within and across cultures.

Conclusion

The current work suggests that people who are impartially prosocial may be evaluated as less moral and trustworthy precisely because they are perceived as not fulfilling, and perhaps not believing that they have, special obligations. While our work has focused on third-person perceptions of obligation, the findings may have practical implications for first-person prosociality and its promotion. For example, the more one donates to distant strangers, the less one has for family. Proponents of large-scale, impartial prosociality, like Singer, may need to do more than convince people that it is both rational and right to treat strangers and non-strangers similarly. Perhaps motivating impartial prosociality will be most effective if framed simply as a gain for strangers rather than a simultaneous loss for oneself and one’s family.

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